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Mr George Marvin
March 8th
266 Arch St - Mr. Elms

Dissertation
upon
Periodical Headache.

George Marvin

admitted March 20. 1821

Printed at the
University Press

Cambridge

George Bell

Printed at the
University Press

Of Periodical Headache.

This disease consists essentially in a pain affecting the whole, or a part of the head, & recurring at regular intervals. It is a complaint therefore, which is analagous in its character to intermittent fever; and it has generally, & I believe justly, been considered a misplaced state of that disease. This is not the only local morbid affection which observes the periodical type. On the contrary, there is scarcely a part of the body, in which intermittent fever has not been known to locate itself. We

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have headaches; ophthalmias; epilepsies; choleras;
dysenteries; mania; gout; hæmoptysis; pains in
the teeth, jaws, ears, back, breast, stomach; &c, &c,
returning at stated hours, & observing regular
periods, as perfectly as a tertian ague. In fact,
the metamorphoses, which intermittent fever as-
sumes, are almost innumerable. Hence it becomes
physicians to be very vigilant, that they may
detect it under whatever form it may ap-
pear. But of all the forms which it assumes,
that of which I am about to treat is perhaps
the most distressing, and obstinate. It is
therefore a disease which has the strongest
claims to the attention of the physician. It
is one which he cannot be too diligent in
detecting; or too energetic in treating. For if
he is ignorant of its nature, or if he attacks
it with a feeble & timid hand, it will run
on to an almost interminable length of time:
whereas if he is bold & energetic, he may

cut short its course, as readily & speedily, as that of any disease whatever.

The pathognomonic symptoms of periodical headache, are very clear & distinct. The disease is completely characterized by a pain in the head, which continues for a length of time, disappears, and then returns at a stated hour.

This pain may affect the whole head; or, what is more common, only a part of it. It sometimes occupies one half of the head, & so exactly that the patient can put a pin between the part pained, & that unaffected. Sometimes, the anterior part is the seat of the pain; at others, the lateral or posterior parts. In some instances, the pain commences over the orbits, affects successively the temple, & side of the head, and disappears in the occiput, leaving the patient nearly as well as before the attack. In others there is an acute, & fixed pain over the eye,

which organ is irritable & suffused.

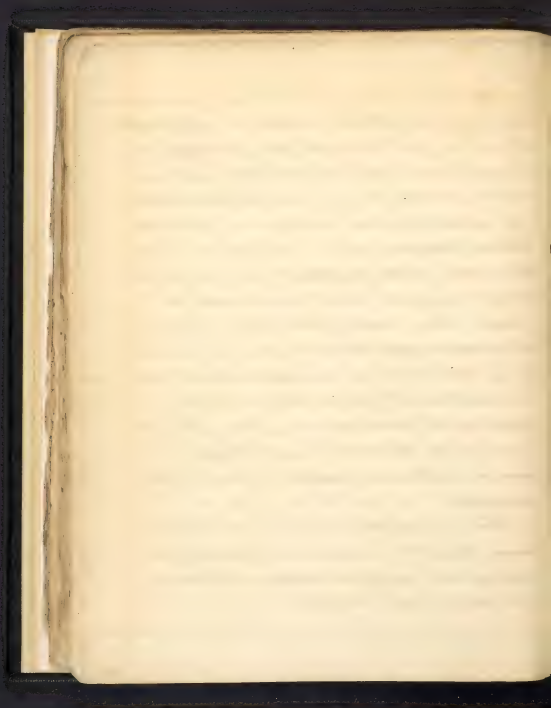
These headaches generally return once a day, sometimes on alternate days; and observe their periods as regularly as a quotidian or tertian ague.

A paroxysm of this disease is generally preceded by languor, yawning; sluggishness of motion; nausea; an uneasy, painful sensation in the stomach; and sometimes by indistinct vision.

The pulse, for sometime before the attack, is generally somewhat depressed, though in other cases it is not at all affected. There is generally no perception of cold, nor, on the contrary is there any sensible febrile heat. These symptoms, continuing for one or two hours, are followed by a pain in some part of the head. This pain, at its commencement, is comparatively mild, but gradually increases in violence, till at its acme, it is, in some instances, augmented to intolerance, and the patient becomes delirious or raving. The

temporal artery throbs violently; the vessels of the eye are full & turgid; the eye itself waters extremely, & cannot bear the light; the eye-lids are sometimes swelled & red, & when the fit has been very violent, they have been known to be black, & blue; Sometimes the eye seems to retire within the orbit, or looks as if ~~then~~ it had lost its usual lustre, or as if the patient had drunk too much, or been watching; the temporal muscle, the cheeks, & upper lip are sometimes in such an agony, that the patient can neither speak, chew, nor swallow. By degrees the pain, & extreme distress of the patient die away, leaving him as well as before the attack; except that he is somewhat exhausted from the violence of the paroxysm.

The paroxysm continues from one, to twelve hours. Generally it comes on in the morning at sun rise, and goes off at midday, or sun down; thus observing solar periods.



The causes of periodical headache appear to be the same, as those of regular intermittent fever. They are marsh miasmata; exposure to a cold, damp air; fatigue; watching; emotions of the mind, &c. The disease prevails most in those places which are most subject ^{to} intermittent fever, and is sometimes a relapse of it. When it is a relapse of intermittent fever, it arises from the febrile forces not being completely expelled from the system.

This force is not sufficiently powerful to excite a general disease, but is concentrated upon some important organ of the body, & produces a local affection. But so far as my observation extends, the disease is not generally the sequel of another disease, but is itself the original, primary affection. The causes above enumerated not being sufficiently powerful to excite a general diseased action, spend their force on a part only of the body.

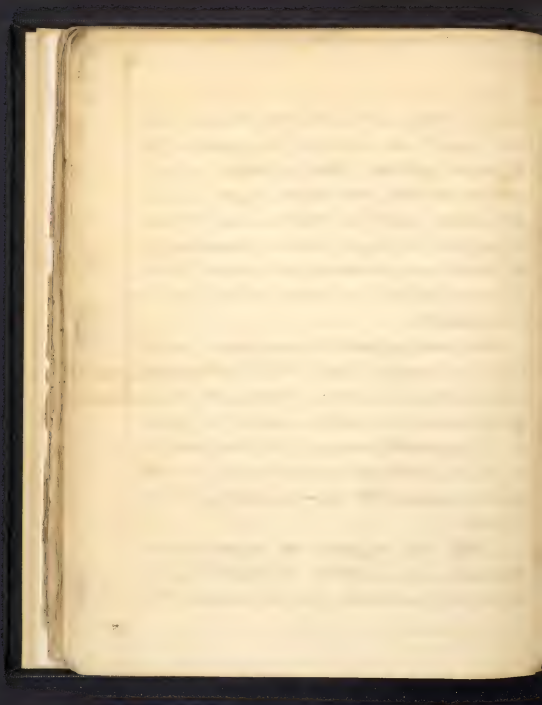
Why this force is directed to one part of the system, rather than to another, I am not exactly



prepared to say. It is probable however, that it is owing to the particular predisposition of the person affected. Hence in persons of an arthritic diathesis, these causes might produce periodical gout: in those inclined to hæmorrhages from the lungs, periodical hæmoptyses: if the person were predisposed to intestinal diseases, he would then have periodical cholera, dysentery, diarrhoea, &c.

Some have supposed that this disease generally arises from carious teeth. This I acknowledge may sometimes be the case. But as the disease affects persons whose teeth are perfectly free from caries, and as the removal of the teeth, when they are carious, will not cure the disease, I am disposed to consider this cause as operating very rarely.

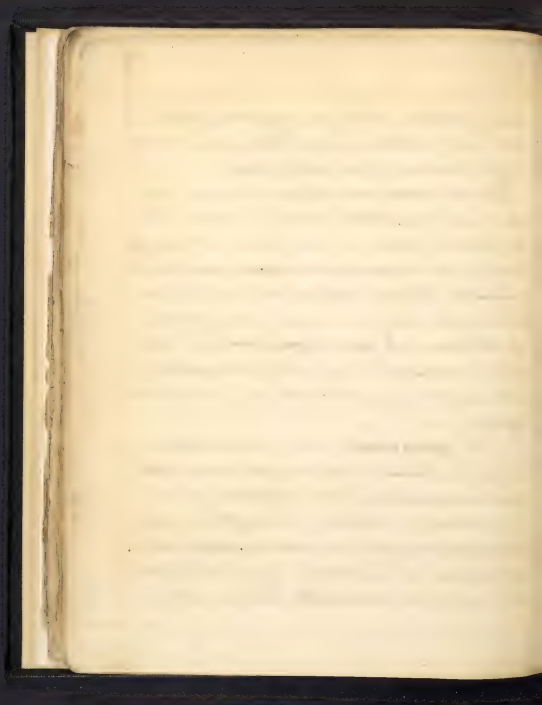
Others have supposed the complaint to be dependent on an arthritic diathesis. There is however no foundation for this opinion. The



disease attacks indiscriminately, those affected with gout, & those in whom there cannot be the least suspicion of a gouty taint.

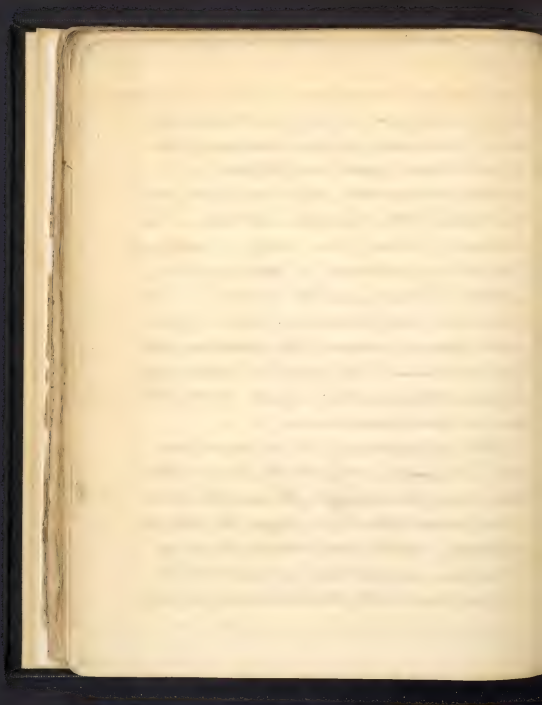
But the disease is occasionally dependent on other causes than those already mentioned. Thus, it has been known to arise from a collection of matter in the meatus auditorius externus; frontal sinuses, &c. In some instances too, it would seem to have been dependent on an organic affection of the brain. In fact it appears that any cause which irritates the nerves of the part affected, either directly or sympathetically may produce the affection.

The proximate cause of this disease may be referred, I think, to a torpor of the nerves, vessels, membranes, muscles, &c. of the part affected, induced sympathetically by a torpor of the digestive organs. Indeed, considering the remarkable sympathy which exists between the head, & these organs, this hypothesis is not at all unreasonable. This sympathy we



see well exemplified in cases of drunkenness. Here in consequence of excessive stimulation, the stomach becomes torpid, and headache is the invariable consequence. Remove this torpor from the stomach, & the headache will cease. So in the disease of which I am treating. In consequence of the action of miasmata, &c, ~~upon~~ a morbid impression is made upon the stomach, and its functions are much disordered. Finally, a torpor of that organ is produced. By association this torpor is extended to the vessels, membranes, &c, of the head, which, in consequence of the defect of the usual motions, becomes pained.

But having advanced thus far we are now met by the question, why does the pain in this disease recur periodically? This question I can no more answer, than I can assign the cause of gravitation. As the disease observes, in many instances very exactly, the solar periods, it would seem some how or other to be dependent on solar



influence. It appears to me however, that external agents must necessarily be insufficient to produce these effects: and that the cause of such wonderful phenomena, should rather be sought in the system itself. All periodical accessions & intermissions of pain must depend for the regularity of their movements upon some important law of our nature. What that law is, has not been hitherto explained. It is well known, that almost all the nervous diseases, have a determination to assume the periodical type. These diseases too I believe are all radicated in the stomach. Is it presuming too much then, to suppose that these periodical diseased motions, are extended with, & directed by, the digestive motions; and that their correspondence with the solar periods is altogether accidental? It must be confessed however that this is a difficult question. All attempts too that have been hitherto made



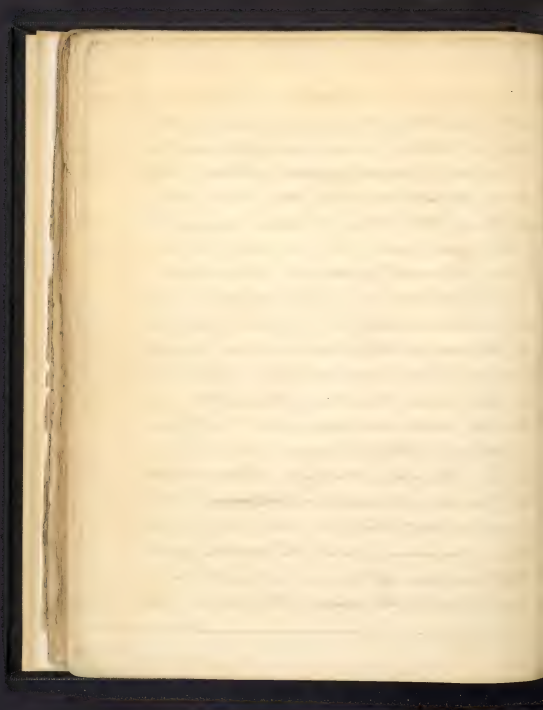
to solve the problem of the periodical nature of diseases, have utterly failed. It is believed therefore, that for the present, we shall be obliged to rest satisfied with considering it an ultimate fact, depending upon some important law of the system, not yet discovered.

Treatment. From what I have seen of this disease I think I can safely affirm, that there is none which more fully shows the power of medicine, & the high value of the healing art. Neglected, or attacked by a feeble & timid practice, this very distressing complaint will run on for an indefinite length of time, without any abatement in the violence of the symptoms. Whitt mentions a case which continued twelve months, & was then, in spite of all his endeavours, worse than ever. In some instances it has been known to continue for years. But even in these cases, when the disease



must have become very firmly rivetted by the power of habit, I believe cures might have been very certainly, & speedily effected. Indeed I think this can always be done where there is no organic affection of the brain. Structural derangements of that organ, would, to be sure, place the case beyond the reach of medicine. But where the derangement is merely functional, it is as easily removed as that of any disease whatever. In the case of Prof., to be mentioned hereafter, the complaint had existed three months, and was then worse than at any former period.

Here the morbid catenations must have become very strong. Yet, by an energetic course, they were entirely broken up in three days. Indeed the practice I am about to recommend is attended with so great certainty, that even in the most protracted cases we may always prevent the accession of the third paroxysm after we are called, & in nine cases out of ten, the second. This assertion was



not rest merely on my authority. It accords
very exactly with the extensive experience with
the disease, of my learned, & much esteemed
instructor Dr Burrill of Troy, N.Y. from whom
I derived the practice. He declares unhesitatingly
that very rarely indeed has he found the disease pass
the 2nd paroxysm from his being called, &
never the third.

But that our efforts may be successful, it
is necessary that they should be of a powerful, &
revolutionary character. It will be to no purpose
at all to meet a disease so obstinate and violent
as this, with a feeble & timid opposition. We must
be bold & decided; & push our remedies to the
extent necessary to counteract the operation of the
morbid cause, let that extent be what it may.

Considering the disease as radicated in the
stomach; & depending on a torpor of that organ,
the curative indication becomes very plain.
It is simply during the intermission to produce,



and keep up, an impression upon the stomach so powerfully stimulant, as to prevent that torpor from ensuing. The articles which experience has proved to answer this purpose best, are opium, Arsenic, & Peruvian bark. Upon these remedies, which I shall call specific, we are to rely for the cure of this very painful disease. But previously to their exhibition, ~~we~~ shall occasionally find it necessary to premise some general remedies; such as V.S.; and evacuations of the alimentary canal. The circumstances demanding these I shall briefly notice.

V.S. may be demanded when there is a plethoric diathesis; when the pulse is full, strong, and hard; or, when there is a tendency to local inflammation. Delirium, also, may in some instances require it. Occasionally the violence of the pain, & the local irritation may call the general circulation into sympathetic action, & thus induce a febrile state, at every recurrence of the pain. This is

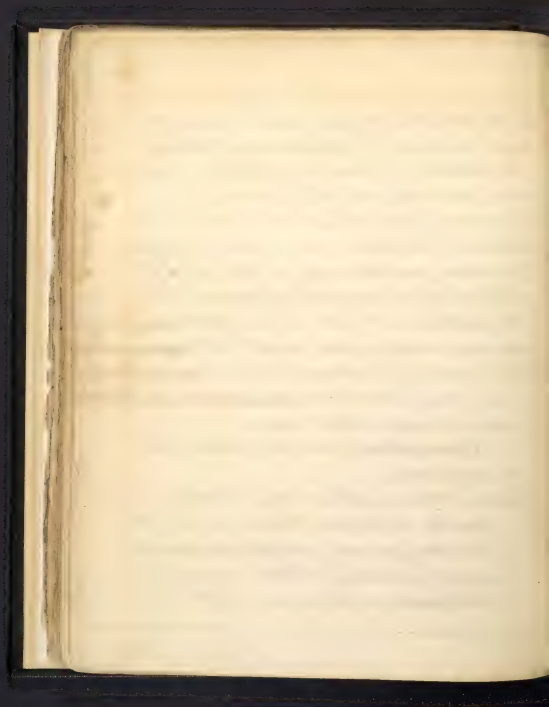


a case also which may be relieved in some instances by the lancet, or perhaps by local bleeding.

The detraction of blood, when the foregoing circumstances demand it, is highly important. By it, we not only reduce the arterial excitement, but also render the system more sensible to improprieties, & of course pave the way for those agents, by which we are to eradicate the disease. But this complaint, like all nervous affections, can very rarely indeed require bloodletting. In a majority of instances so far from curing or even relieving, the disease, the detraction of blood will only make it worse.

Evacuations from the *primæ viæ* are required;

First, When an inflammatory diathesis is present. In this case they are auxiliary to bloodletting, or may perhaps supersede the necessity of recurring to that remedy. This will depend on the degree of inflammation.



Secondly, When there are crude & irritating matters overloading the stomach & bowels. While these remain in the primæ viæ, the disease may take deep root, & the cure be rendered difficult & tedious. But by early evacuating these, the disease may be stethoned; or, at least, the stomach & bowels may be put in a proper state to admit the prompt & active operation of our specific remedies.

Thirdly, When the intermissions are not complete, or the disease has run into the continued form. The importance of evacuants in bringing the disease back to its proper intermittent character, is finely exemplified in the case of *Relaps*, to be mentioned hereafter.

When the foregoing circumstances call for evacuations from the alimentary canal, we exhibit either an emetic, or cathartic, or both.

As an emetic the antimonial is perhaps to



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be preferred. It not only evacuates the stomach thoroughly, but it also makes a powerful impression upon that organ, & is unquestionably better calculated to break up trains of morbid association, than any other.

The best time for exhibiting the emetic is from half an hour to an hour before the accession of the paroxysm. Administered at this time, it makes such a powerful impression ^{upon the system,} & gives such a concussion to it, ~~sooner~~ that the expected occurrence of the fit may be prevented, & an end put to the disease. At any rate, if it does not effect so much as this, it will at least shorten the paroxysm, & lessen its violence.

As a cathartic calomel is undoubtedly best. As the liver is very liable to be affected in this disease, & probably generally is so more or less, calomel will exert its specific action on that organ, emolging it, & promoting its healthy functions. It also dissolves the mucus which adheres to the

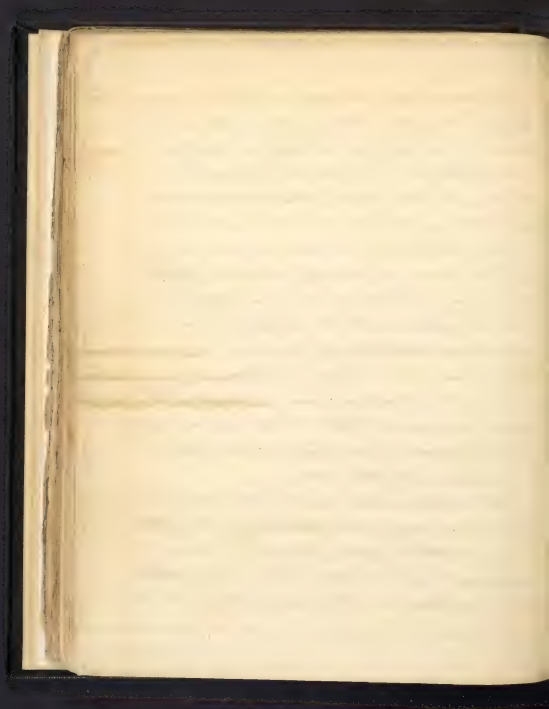


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stomach & bowels, & thus, in some instances, re-
moves the necessity of exhibiting an emetic.

As cathartics make no very powerful im-
pression on the disease, they should never be
exhibited just before the paroxysm. On the
contrary they should be given so that their
operation may be entirely finished before
the period of accession. In this way they
will not ^{only not} interfere with the exhibition of our
specific remedies, but they will also prepare
the *viscera* for their reception.

We shall sometimes find it necessary to
exhibit only one of these articles: and we must
then be guided in our choice by the particular
circumstances of the case.

But in some cases, as where the stomach &
bowels are very much overloaded, & the inflam-
matory diathesis great, it will be proper &
necessary to exhibit both. The proper method
to be pursued in this case, will be, to ad-



minister the cathartics 8 or 10 hours before
the accession of the paroxysm; and the emetic
half an hour, or an hour. In this way we
shall answer every possible indication which
these articles can fulfil.

But the foregoing general remedies
are merely auxiliaries; and we must never
rely upon them for the entire removal of the
disease. In most instances they are not re-
quired, & in recent cases, particularly, may be
^{advantageously} dispensed with.

These evacuating means being premised
or not, according to the exigencies of the case,
we next resort to the specific remedies before-
mentioned, viz, Opium; Arsenic; & Peruvian
bark. With these we are to prevent the ac-
cession of the paroxysm, and eradicate the disease.
In preventing the recurrence of the paroxysm,
opium is unquestionably the most powerful. In
fact it is just such an article as the case re-



quires. It invigorates, & equalizes the circulation; makes a powerful impression upon the stomach & nervous system; & of course is well calculated to destroy the action of the morbid cause. Indeed I can hardly conceive a case so refractory, as long to resist the powerful influence of this article. But it must be exhibited with a fearless hand. It will be to no purpose to administer it in the ordinary doses. We have severe pain, & great morbid action to contend with; circumstances which do not permit us to be hampered by pharmacological rules. Whether the quantity necessary be three, or fifty times the usual one is of very little consequence. It might be supposed there would be danger in exhibiting it to such an extent. But it must be recollected, that the action of pain is always in powerful opposition to that of opium; & hence no injury can result so long as the action of the former is greater than that of the latter. In the exhibition of this article therefore, let there be no other guide than its effects.

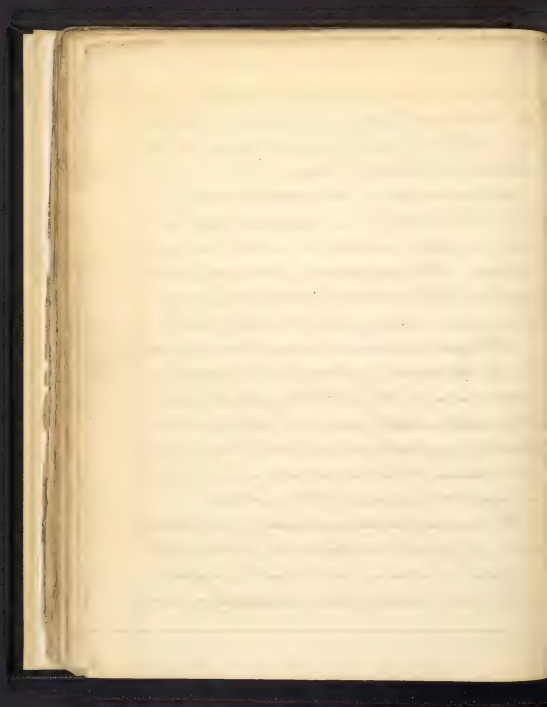


Let it always be given in a quantity commensurate with the degree of morbid action, let that quantity be what it may.

As our object in the administration of opium is to produce an immediate effect, it will be best to exhibit it in the form of tincture. This preparation will more powerfully stimulate the stomach & better prevent the torpor from ensuing, than the solid opium.

Although we cannot always know the exact force of the disease, & of course can lay down no precise rules for the exhibition of the tincture, yet we shall probably find the following method answer our purpose exceedingly well; varied to be sure according to the circumstances of each individual case, & the judgment of the practitioner.

We commence the administration of the laudanum one & a half, or two hours before the accession of the paroxysm. In ordinary cases it will be sufficient at this time to exhibit from gutt. lxxx - c. In the

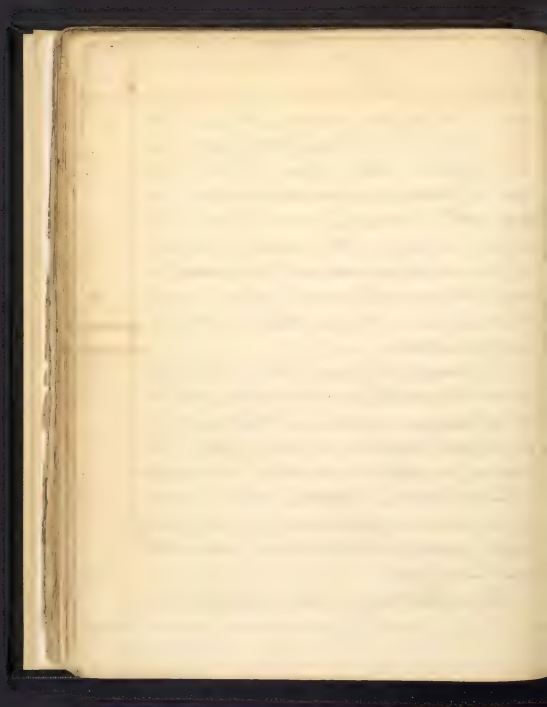


course of half an hour, or sooner if the patient feels any of the, premonitory signs of the paroxysm, exhibit gutt. lx - lxxx - c more. If after a short time the patient is perceived to be still threatened with a paroxysm, repeat the dose, or increase it according to the necessity of the case. In this way we proceed with the remedy, increasing the quantity, & giving it oftener if necessary, till the patient is no longer threatened with the expected attack.

If however the force of the morbid action proves to be greater than we had anticipated, and notwithstanding our endeavours the paroxysm comes on, we then let it run its course; & after it has subsided, we call in to our aid the arsenic, & bar.

These two articles in addition to their immediate effect produce one also more or less permanent. They may be properly exhibited therefore during the whole intermission.

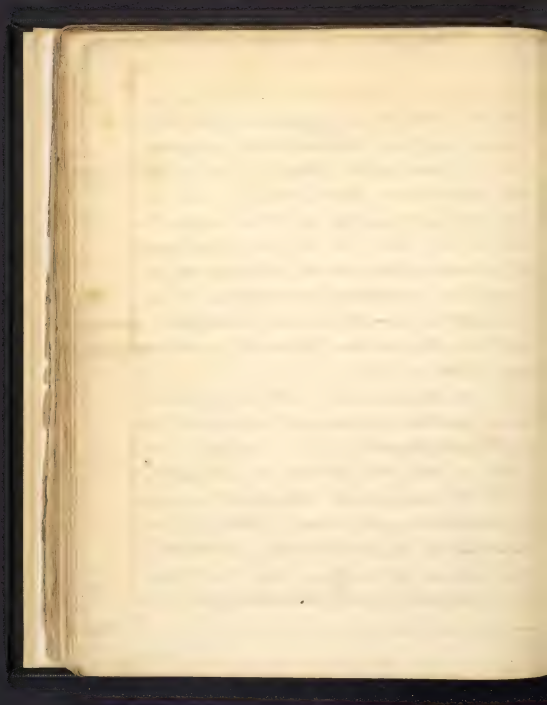
The preparation of arsenic which appears



upon the whole to be preferred is Fowler's Mineral Solution. This should be exhibited in as large doses as the stomach can bear. In most instances, we shall probably be able to give from gutt. xij - xx four times a day. But that we may have the benefit of the immediate operation of this article, as well as its permanent one, we should calculate the periods of exhibition so as to have one of them come about $\frac{1}{2}$ or $\frac{3}{4}$ of an hour before the expected accession of the paroxysm.

The operation of arsenic in the cure of periodical headache is that of a morbid stimulus. It produces on the stomach an action sui generis, which is stronger than that of the cause of the disease.

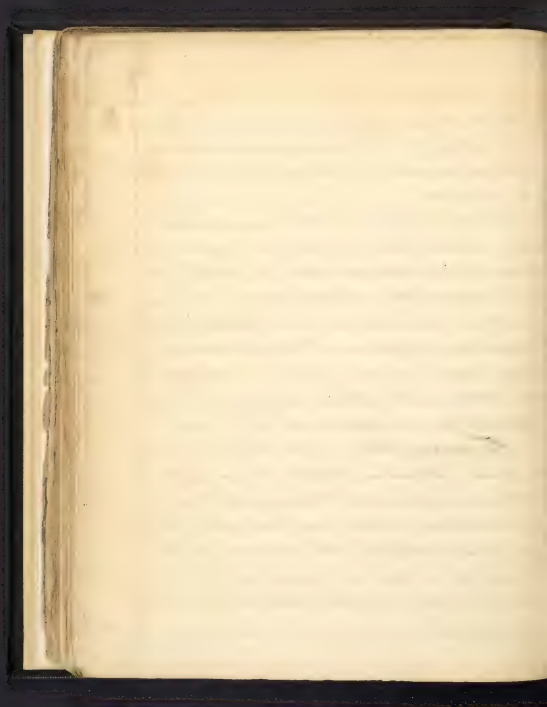
The Peruvian bark, though not so powerful in this affection as the arsenic & Tinct. Opii, may nevertheless be a useful auxiliary. It should be given in doses of from ℥j - ij every 3 or 4 hours during the first part of the intermission. But



as the period of accession of the paroxysm approach-
es, the interval of its exhibition should be shortened;
& the dose increased to as great an extent as the stom-
ach can bear.

It was formerly fashionable to give the bark in
every periodical disease, & to rely upon it alone for
its cure. But when given alone, the quantity requir-
ed to produce the wished-for effect is very incon-
veniently large; & besides it is found frequently to fail.
By combining it however with other remedies, as
opium & arsenic we can exhibit it to a sufficient ex-
tent, without overloading the stomach, & be very much
assisted by it in our efforts to cure this disease.

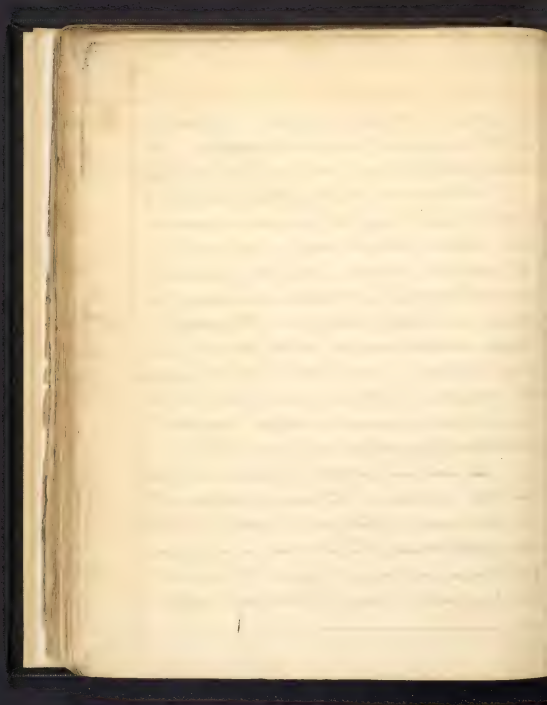
The foregoing then is the method of interrupting
the course of Periodical headache. To sum up the
treatment in a few words. Bleed generally, & locally
to reduce arterial action, or remove local inflammation;
give emetics, or cathartics, or both to remove acrid, and
irritating matters from the primæ viæ: give Fowler's
arsenical solution, & peruvian bark during the whole



intermission, & Sinet. Opii in large doses immediately before the paroxysm, to prevent its accession. This method, properly pursued, will never fail of success.

But it will not be sufficient merely to prevent the recurrence of the paroxysm for once, or twice. There is the same danger of relapse here that there is in regular intermittent fever: and if we do not continue our remedies, a recurrence of the disease will certainly take place. The patient therefore should continue to take the arsenic, and bark, with some vegetable bitters, for 2 or 3 weeks after the interruption of the paroxysms. In fact all the means pursued to prevent a relapse in regular intermittent fever, should be pursued here. —

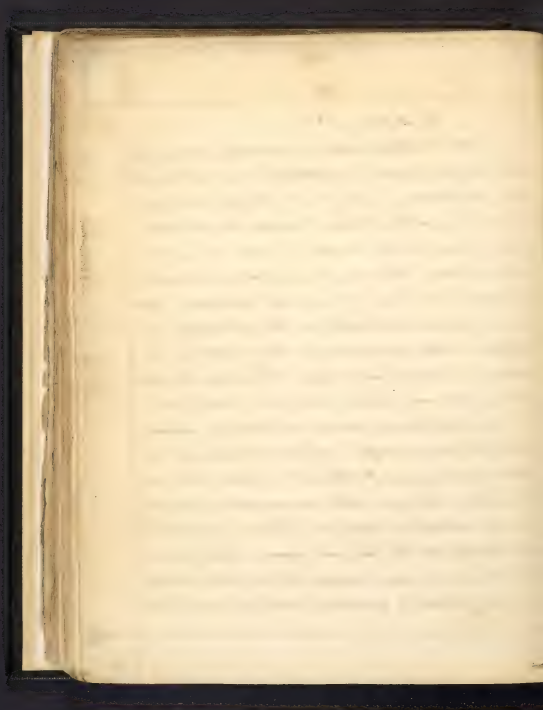
In order more fully to illustrate, as well as to show the importance of the mode of treatment I have laid down, I shall give an account of three cases of the disease. The first case was an instance of the disease as it generally appears. It was a mild case, & was attacked early. It occurred to myself.



CASE 1st.

Mrs ECKENBRACK a married woman, of about 40 yrs of age, of a delicate constitution, had symptoms of fever for 2 or 3 days previously to my being called. When I visited her, she had violent pain in the bowels, & a pulse somewhat hard, & tense. In order to evacuate her stomach & bowels, & to remove her feverish symptoms, I gave her an antimonial emetic in the afternoon, and followed it the next morning with a cathartic of calomel & pulvis jalap. comp. This had the desired effect, & left my patient free from fever & pain.

Notwithstanding however the thorough evacuation which she had undergone, she was attacked on the following morning at 8 O'CLOCK with a violent pain over the orbit of the eye, which was preceded by languor, yawning, dullness, & depression. The pain, raised from the orbital, into the temporal region, becoming constantly more & more violent, till it passed into the parietal portion, & gradually subsided at noon, leaving



her as well as before the attack. I at once suspected that she was about to be affected with a misplaced intermittent. Accordingly I ordered her to take 4 times a day gutt. x. of the mineral solution, and ℥j of Cinchona. On the following morning at 8½ o'clk, I directed her to take Tinct. Opii gutt. ℥x, & to repeat the dose whenever she felt the least languor or sickness. From timidity she did not take the Tinct. Opii in the quantity directed. The fit came on. I ordered her to continue the bark, & solution as before. The next morning at 6 o'clk I attended myself, & immediately gave her Tinct. Opiigutt. ℥x. At 7½ o'clk symptoms of languor, &c. came on, & I gave her gutt. ℥x. more. This entirely removed these symptoms, & effectually prevented the accession of the paroxysm. In order to guard against a relapse, she took the bark & arsenic for some days, & afterwards, some aromatic liquors, by which she was entirely restored to health.

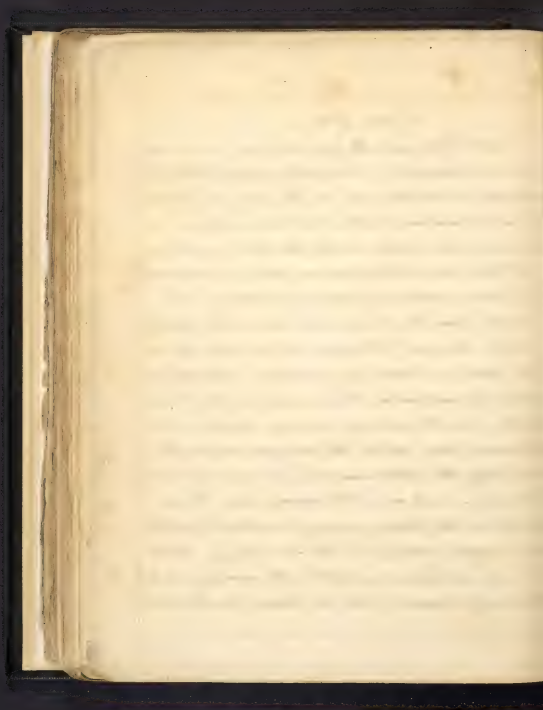
For the history of the following case I am indebted to Dr. A. Robbins, the apothecary in business of Dr. Burdett.



Case 2nd.

Mr. Ross, aged 26 yrs, had been affected with periodical headaches for 3 months previous to Feb^y 1820. At first, it attacked him in the form of a tertian, & was comparatively mild. But after continuing in this form a few weeks, it took the shape of a quotidian.

At this time Dr. Robbins was called, in consequence of a severe catarrh of some days standing. The headache had then become continual, & was extremely violent. In order to bring it into its proper intermittent form, an emetic was promised, & this was followed by diaphoretics. The succeeding night the pain abated, & on the following morning recurred about the usual time. After the paroxysm subsided the second day, the patient was ordered the Mineral solution, & Peruvian bark, as in the preceding case. He was directed on the following morning, 1/2 an hour before the usual accession of the fit, to take Tinct: Opii ℥j. As the fit came on before day light in the morning, he did not awake in season to take the tincture before the attack.



He took it however, after the paroxysm came on, which was consequently much lighter, & shorter than usual. After it subsided, he made free use of the bark, & arsenic, & at bed time took a small dose of laudanum. The next morning he was directed to take ℥j. of Laudanum as soon as he awaked, with ℥ij. of Cinchona, & to repeat this every half hour till the commencement of the attack, & then to repeat it as often as it had the effect of removing the pain. In this way he took about ℥j. of Tinct. Opii, by which the fit was reduced to the length of one hour. The next day, the accession of the paroxysm was entirely prevented by ℥ss. of Tinct. Opii, given as on the preceding day: & he had no return of the disease afterwards. He continued to use the Cinchona 4 weeks, when he was perfectly well.

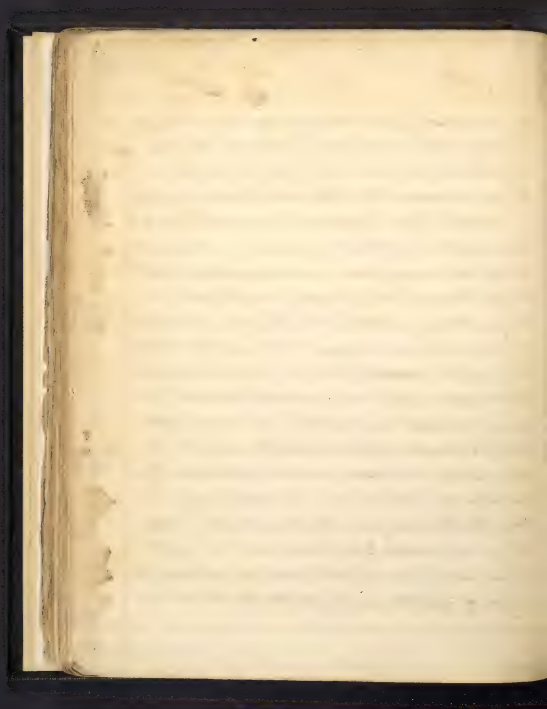
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The following case occurred to Dr. Bernini, who very politely favored me with its history.

CASE 3rd. Mr. Jno P. Fellows at 8 o'clock in the morning was seized with a pain on the right

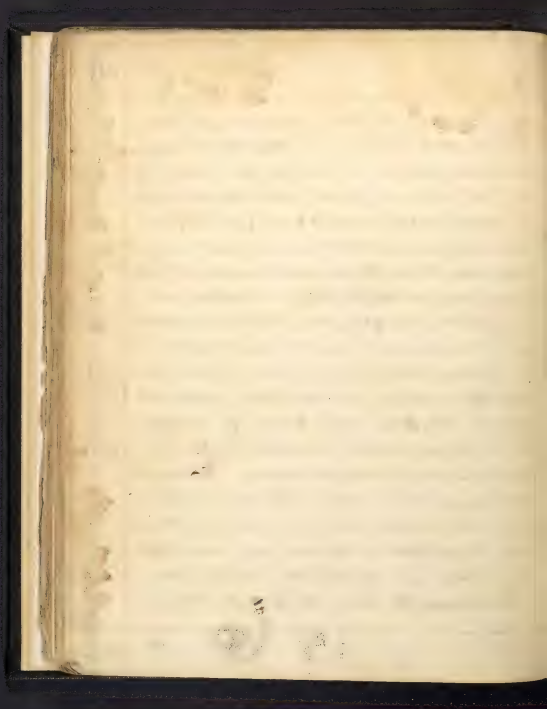


eye, accompanied by great heat of the integuments on the right side of the head, & violent throbbing of the right temporal artery. The eye was inflamed & its vessels were full & turgid. The pain increased till 12 o'clock, when it became excruciating. At 1 o'clock it began to subside & at sun down the pain & other symptoms left the patient entirely. He continued well till the next morning when he was seized as before, & went through the same routine of suffering as on the preceding day. He was attended by Drs H. & W. They gave him a number of emetics, but found no regard to the time of their exhibition. They purged him repeatedly, bled him, scarified & cupped his temples again & again, till he was almost exhausted. This plan of treatment was persisted in for 3 weeks without the least benefit. Dr. Burritt was then called. He at once considered it a case of misplaced intermittant. As he was called during the paroxysm, he declined doing any thing till the intermission. As soon as the fit was off, he gave him Cinchona ʒ.ij. & ordered him to take of the Mineral solution gutt. xx. three times a day, calculating the periods of exhibition as before directed; & on the succeeding



morning to pursue the following course. At 4 o'clock take
 Tinct. opii gutt. l. & cinchona ℥j. At 5 o'clock or 2 hrs before
 the accession of the fit take Tinct. opii gutt. c. & cinch. ℥ij.
 At 7 o'clock take Cinch. ℥j. At 7½ o'clock take mineral solu-
 tion gutt. xx. Tinct. op. gutt. lxx. & cinch. ℥ij. This plan
 however did not prevent the fit from coming on, & running its
 usual course. He was therefore ordered to continue the bark
 & arsenic during the ~~evening~~^{successing} evenings, & at 4 o'clock the next
 morning to take Tinct. opii gutt. c. He did so, & forthwith
 sent for Dr. Burnett, who immediately began to crowd down
 the laudanum & bark as largely as possible. In fact, he admin-
 istered these medicines so freely, that between 4 o'clock & 8 o'clock
 the patient took Tinct. opii ℥.x. & Cinch. ℥.ij. In addition to
 this he took also gutt. xx. of the arsenical solution ½ an
 hour before the fit was to have come on. This course
 effectually prevented the accession of the paroxysm. The next
 day in order to remove all danger of a recurrence of the dis-
 ease, he was treated in the same way, except that
 the medicines were not exhibited in so large doses.

He continued the use of the bark, & arsenic for



for a week longer, & then changed them for some aromatic bitters by which his health was completely confirmed in a short time.

It may not be improper to observe, that this patient has had two attacks of this complaint, since the one just described. He was shortly cured by the mode of treatment I have laid down, the remedies not being pushed however to the extent they were in this instance. —

I might mention many other examples of ^{cases of} periodical headache, in corroboration of the foregoing plan of treatment. I believe however, that those already related are sufficient for the purpose intended. —

